

as he had but one male of each variety and it would be exceptional to find two from even the same locality exactly alike in color pattern. Baker suggests that *atra* may prove but a variety of *humilis* Stål, a suggestion that is undoubtedly correct as I have examined males from Vera Cruz that do not differ from the Colo. specimens except that they are slightly smaller, and this is also the case in *missella* the only other species occurring in both places.

**Macropsis laeta** Uhl.

var. **paeta** n. var.

Differs from typical *laeta* only in color. In life the whole insect is suffused with reddish, the hyaline elytra allowing the stronger color of the abdomen to show through. Dried specimens are of a delicate pink. This pink variety of a green species is analogous to the pink Katydid.

Summed up according to the above synonymy, the specific limits and dis-

tribution will be as follows. (The generic synonymy is given above.)

**M. laeta** Uhl. and var. **paeta** nov.

Known only from Colo.

**M. apicalis** O & B.

*M. alabamensis* Baker.

Iowa and Alabama.

**M. robustus** Uhl.

Ala. La. Texas, N. Mex., Ariz., Calif. and Colo.

**M. missella** Stål.

*M. rufoscutellata* Baker.

Colo., N. Mex. and Vera Cruz, Mex.

**M. humilis** Stål.

*M. atra* Baker, *M. californica* Baker, *M. magna* Baker.

Colo., Calif. and Vera Cruz.

**M. innervis** Fowler.

Mex.—Unknown in nature. Its description (as a Membracid) not giving specific characters. It may fall under one of the other species.

**M. (?) idioceroides** Baker.

N. Mex.—I doubt very much whether it belongs to the genus at all.

LIFE HISTORIES OF NORTH AMERICAN GEOMETRIDAE.—XVI.

BY HARRISON G. DYAR, WASHINGTON, D. C.

*Euchleana serrata* Dru. The larva is here described for the first time.

*Egg.* Laid loosely, rolling around in the tumbler like sand. In nature doubtless falling upon the ground. Elliptical, not flattened, but of less diameter on one direction, both ends rounded, one (micropylar) slightly more flattened. Reticulations large, about 12 the length of the egg, very strongly raised, forming ridges, the reticulations wider than long and arranged in nearly straight rows the

length of the egg, forming longitudinal waved ridges, which are, however, exactly like the cross striae except that the latter are alternating. Joinings of reticulations with white points in oblique view, not seen from above. Surface finely shagreened. Bright bluish green, later dark red. Size .8 × .5 × .4 mm.

*Stage I.* Head round, pale brownish, mottled, slightly darker in a line above the black ocelli, and with whitish over the face; width about .3 mm. Body rather short, not slender,

feet large, cervical shield and anal plate also large but not strongly cornified. Body white, a broad regular, subdorsal, purple-brown stripe, obsolete on the cervical shield, the pair joined dorsally on joints 10-13 and becoming a narrow dorsal line on the anal plate. A broad ventral similarly colored band, absent on the segments with feet, but narrowly tinting their bases. Feet pale. Setae short, black, with slightly swollen tips, some of those at the ends and on the feet longer and with sharp tips. Tubercles i and ii nearly in line, remote; iii well before and above the spiracle; iv well below and somewhat behind it; v below iii, vi absent, vii with three setae well separated and arranged in a triangle; viii in the ventral dark band. On the thorax the subprimary setae are absent, iib a very long hair, not glandular and with a large tubercle.

*Stage II.* Head rounded, not bilobed, mouth pointed and projecting, clypeus rounded above; pale brown, sutures dark brown, lobes marked with brown dots in vertical bands; width .45 mm. The head is held out flat. Body cylindrical, moderate, thoracic feet appressed. Whitish green on the sides, a broad purple-brown subdorsal band, the pair united into a dorsal band on joints 10-13, obscurely geminate on the thorax, distinctly so and becoming light red on the cervical shield. A broad ventral stripe of the same dark color covering all the feet except on the lateral aspect.

*Stage III.* Head rounded, held out flat, pale brownish, dotted with dark across the face in three irregular transverse bands, the first vertical, second across the clypeus, third at base of antennae; ocelli black, antennae whitish; width .65 mm. Body whitish green, a subdorsal dark brown band, pulverulent and obscurely double, becoming a single dorsal band on joints 10-13. A single similar ventral stripe. Feet pale outwardly.

*Stage IV.* Head obscurely pale brownish, dotted with dark brown, most distinctly in a vertical stripe on the lobes. Rounded, not bilobed; width .9 mm. Body moderately

slender, smooth, obscure grayish green, the double band joining behind and the ventral band as before, but grayish brown, not contrasting and all finely, obscurely, longitudinally lined with whitish.

The larvae reached this stage September 4th and were hibernating by October 1st.

*Stage V.* The moult took place sometime in the winter, in February or March, I think. The larvae were described April 30th and had not, at that time, begun to feed.

Head flattened and held out flat, broad, square at the mouth, median suture depressed, antennae large and curving inward; gray, whitish about the clypeus, longitudinally streaked on the sides of the lobes, tip of antennae dark ochre; width 1.2 mm. Body slender, somewhat flattened, smooth; shields not visible, anal flap conical with a small tubercle each side the tip; prongs large, contiguous. Gray, obscurely longitudinally striped. Broad dark subdorsal and stigmatal lines on a light ground, between which are fine addorsal, lateral, suprastigmatal, two lower subventral and ventral lines. Tubercles small, black, not elevated. Spiracles black ringed. Feet gray.

*Stage VI.* Head flattened, squarish, the apex under joint 2; bark brown, clypeus pale, three vertical straight whitish streaks on each lobe, the one on lateral angle prominent and broad; width 1.7 mm. Body moderate, cylindrical, smooth, reddish brown, finely lined with black and with a yellowish white substigmatal line, linear except below the spiracles where it is diffusely blotched. The lines are dorsal geminate reddish, double confluent subdorsal blackish; lateral space shaded with red with indistinct lines; three subconfluent suprastigmatal black lines, four diffuse subventral ones, a red shade and finally three ventral blackish lines, subconfluent, the last geminate. Thoracic feet and antennae whitish gray; abdominal ones and anal prongs mottled. Spiracles white, black rimmed.

*Stage VII.* Head flat and held out flat, square, apex under joint 2; antennae large,

projecting, curved inward like claws; gray, a whitish ground peppered with black and brown, heavily streaked on the sides with dark as before. The body is smooth, no humps, moderate, the thoracic feet flat and appressed. Bark brown in appearance, longitudinally lined. Tubercles small, distinct, slightly elevated, black. Cervical shield, anal plate and anal leg shields colored like the body but more whitish and mottled. The lines are fine and numerous, crinkly, ill defined. A subdorsal (tubercle ii) is blackish and rather distinctly limits the broad dorsal space which is filled with brown wavy marks; lateral region with some rather strong lines and the subventral region also blackish. The lines tend to alternate, brown and black but are much confused. Ground color light gray, almost white, but largely obscured.

*Stage VIII.* Head flat and held out flat, apex narrowly under joint 2; quadrate, clypeus centrally and tops of lobes a little bulging, paraclypeal pieces reaching nearly to vertex; antennae large, projecting, a little curved inward; gray shaded with brown, mottled, epistoma and central part of paraclypeal pieces whitish; a diffuse luteous line on each side of the median suture and on the sides of the lobes, parallel to the markings on the body; antennae pale; width 3.3 mm. Body slightly flattened, robust, only moderately elongated, uniform, no humps. Tubercles elevated, conic, thorn-like, more distinct on the posterior half of the body, but small throughout. Thoracic feet curved, ap-

pressed; abdominal ones large, joint 13 with a large triangular plate produced behind into thick subanal prongs. Anal plate triangular with a central carina posteriorly that becomes a groove anteriorly, the posterior edge of the plate dentated by four tubercles. Setae short and pointed, longer on the anal plate. Rich brown and blackish, relieved by white. Ground white, almost entirely overlaid by the other colors. Dorsal space mottled red-brown and ochreous, an ill defined geminate dorsal line, showing blackish on the thorax and posteriorly at the ends of the segments. A broad shaded blackish subdorsal band; lateral and stigmatal blackish bands, all ill defined, mottled, the spaces between shaded with ochreous and brown, with white showing in spots on the posterior edges of segments. A broad subventral band, a narrower one each side of the medio-ventral band, all dark and like the others. Spaces between similarly mottled. Venter of joint and 5 spots below the spiracles on the subventral fold are lighter, yellow between the dark bands which are not interrupted. Thoracic feet whitish; abdominal ones darkly mottled, blackish gray. Lines continuous over the shields. Spiracles gray, black rimmed.

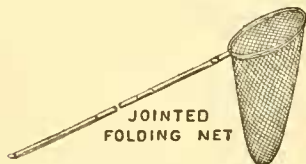
*Food plant* unknown. The larvae ate maple in preference to apple and weeds with which they were supplied, and fed upon this tree; probably their native food plants are various. Single brooded, eggs July 28th, mature larvae the following June. Moth from Summit, New Jersey.

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